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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,631	01/06/2004	Kazushige Takechi	Q79065	3211

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
NGUYEN, JOSEPH H	

ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H:A

Office Action Summary	Application No.	Applicant(s)	
	10/751,631	TAKECHI, KAZUSHIGE	
	Examiner	Art Unit	
	Joseph Nguyen	2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 23-30* is/are pending in the application.

4a) Of the above claim(s) *2,8,23-26 and 29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,27,28 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/24/06, 12/21/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

It is noted that the references submitted in the information disclosure statement filed on 02/24/2006 and 12/21/2005 are identical.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is not understood what applicant regards as "an electrically active thin film device layer" since there is no specific definition of this device layer. The figures or the disclosure of the instant application does not show or support the claimed device layer.

Claims 3-7 are also rejected due to their dependency upon the rejected base claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 4-6, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Burroughes et al. (US 6,592,969).

Regarding claim 1, Burroughes et al. discloses in figure 1 a flexible electronic device comprising a flexible film 2 (col. 6, line 11 and col. 4, lines 28-30); a substrate 4 (col. 6, line 11) disposed on the flexible film, the substrate being different from the material of said flexible film (col. 6, lines 10-11) and thickness of the substrate is larger than 0 μm and not larger than 200 μm (col. 3, lines 35-36); and an electrically active thin film device layer 6 (col. 6, line 50) disposed directly on the substrate 4.

It is noted that there is no specific definition of "an electrically active thin film layer". Further, there is distinction between "electrically active thin film" and "electrically active thin film device layer". The "electrically active thin film" constitutes "specific structure" in which the thin film functions as "electrically active" (i.e. emission layer in a thin film light emitting device) while the "electrically active thin film device layer" is merely an "electrically conductive thin film layer" within an electronic device. Therefore, the indium tin oxide layer 6, directly disposed on the substrate 4 can be construed as "electrically active thin film layer".

Regarding claims 4-5, substrate 4 as shown in figure 1 of Burroughes et al. is formed of glass (col. 6, line 12), which is an insulating material.

Regarding claim 6, layer 2 as shown in figure 1 of Burroughes et al. is plastic, which is flexible (col. 4, lines 30-31).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughes et al. in view of Weaver et al. (US 2004/0079945).

Regarding claims 3 and 27, Burroughes et al. discloses in figure 1 substantially all the structure set forth in the claimed invention except the thin film device being a silicon thin film transistor. Note that Burroughes et al. teaches the structure in figure 1 can be formed with organic thin film transistor (col. 4, lines 40-45). However, Weaver et al. discloses a silicon thin film transistor or organic thin film transistor can be alternatively used. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Burroughes et al. by employing a silicon thin film transistor in the structure as shown in figure 1 of Burroughes et al. because organic thin film transistor and silicon thin film transistor are recognized in the art as equivalents.

Claims 7, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughes et al. in view of Ishida (US 4,661,428).

Regarding claims 7, 28 and 30, Burroughes et al. discloses in figure 1 substantially all the structure set forth in the claimed invention except the flexible film having a thermal conductivity higher than 0.01 W/cm deg. Note that Burroughes et al. discloses the flexible film is formed of plastic (col. 6, line 11) and applicant discloses a copper film has a thermal conductivity of 4.0 W/cm deg, which is higher than0.01 W/cm deg (col. 11, lines 19-20). However, Ishida discloses the flexible film can be formed of plastic or copper (col. 4, lines 51-56). In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Burroughes et al. by having the flexible film formed of copper, which has a thermal conductivity higher than 0.01 W/cm deg because copper and plastic are recognized in the art as equivalents.

Response to Arguments

Applicant's arguments filed 01/19/2006 have been fully considered but they are not persuasive.

With respect to claim 1, applicant argues Burroughes et al. does disclose an electrically active thin film device layer disposed directly on the substrate as recited in now amended claim 1. However, as explained in rejection of claim 1 above, there is no specific definition of "so called- electrically active thin film device layer" recited in claim

1. Further, there is distinction between "electrically active thin film" and "electrically active thin film device layer". The "electrically active thin film" constitutes "specific structure" in which the thin film functions as "electrically active" (i.e. emission layer in a thin film light emitting device) while the "electrically active thin film device layer" is merely an "electrically conductive thin film layer" within an electronic device. As such, element 6 formed of tin indium oxide, directly disposed on the substrate 4 can be construed as "electrically active thin film device layer".

With respect to claims 7 and 28, applicant argues Ishida makes no reference to the thermal conductivity properties of plastic and copper and also fails to suggest equivalence between plastic and copper. However, every material including copper and plastic inherently constitutes a thermal conductivity property. Further, Ishida teaches in column 4, lines 51-56 plastic and copper can be alternatively used to form a film layer. Therefore, it would have been obvious at the time of the present invention to modify Burroughes et al. by including a flexible film formed of copper since the Examiner takes Office Notice of the equivalence of plastic and copper for their use in the film layer and selection of any of these known equivalents would be within the level of ordinary skill in the art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN
March 6, 2006.

KENNETH PARKER
SUPERVISORY PATENT EXAMINER